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| **THEME 13. QUALITATIVE, QUANTITATIVE, AND MIXED METHODS RESEARCH** |

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| Learning outcomes  This lesson offers you opportunities to:   * Gain an overview about research design and methods; * Learn about quantitative, qualitative and mixed research methods; * Develop note-taking skills while watching speech; * Develop strategies and techniques to use questionnaires and interviews; * Reflect your understanding about research design and methods.   *Key-words: quantitative, qualitative, mixed methods research, research design, data collection, compilation, analysis, questionnaires, interviews.* |

A fundamental and well recognized contrast in research technique is between qualitative and quantitative research. They possess distinct qualities that separate them, including data gathering and analysis methods, as well as the type of the obtained data, among others. Quantitative research entails data gathering methods that provide mostly numerical data, which is then analysed largely by statistical techniques. Standard instance: survey study using a questionnaire, analysed with statistical software like SPSS. Quantitative data is mostly derived from numerical values, allowing for analysis using various statistical software tools. Qualitative data, as noted by Dornyei (2007), encompasses data collecting methods that provide mostly open-ended, non-numerical information, then analysed mainly by non-statistical techniques. A typical instance: interview research, whereby the transcribed recordings are examined using qualitative content analysis.

In addition to the two primary types, there exists a third category that combines both quantitative and qualitative data, referred to as mixed-method research. Dornyei (2007) posits that mixed method research encompasses various combinations of qualitative and quantitative research, applicable at either the data collecting or analysis stages. Standard instance: sequential and interconnected questionnaire and interview research.

There are, however, several debates regarding the differentiation between quantitative and qualitative research. Scholars such as Richards (2005) argue that the numerical versus non-numerical distinction lacks sufficient clarity, as qualitative researchers frequently gather numerical data (e.g., participants' ages), while quantitative researchers often collect non-numerical information (e.g., participants' gender or nationality). Thus, she asserts, 'qualitative and quantitative data do not exist in separate realms.' There are several methods for documenting observations of the same environment (p. 36).

The phrase 'research design' denotes the methodology used to execute your investigation. Stella Cottrell (2019, p. 357) outlines the following components:

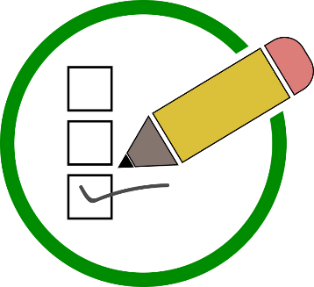
* the necessary source materials or data;
* the precise methods for their collection;
* the number and type of individuals to be interviewed or involved, if applicable;
* the specific tasks required of participants;
* the formulation of questions aimed at obtaining the exact data needed;
* the creation of forms for data recording and compilation.

**Data collection, compilation, and analysis**

Guarantee the acquisition of a enough volume of data to provide persuasive and trustworthy results. Nevertheless, the process of collecting and analyzing data is labor-intensive; thus, seek assistance in establishing the required minimum for your particular subject. An overabundance of knowledge is counterproductive for student tasks, since it expends time on collecting, sifting, and selecting information that is ultimately impractical. Create forms that collect data efficiently for swift compilation. Upon gathering your data, organize it methodically into charts or tables to enhance comprehension. Participate in the identification and analysis of repeating patterns and developing trends. Formulate appropriate comparisons using analogies.

**Creating Questionnaires.** Questionnaires are a technique used to gather data for individual projects. They may be used to elicit preferences and opinions from participants, as well as to collect data on their experiences and backgrounds. Decide whether to invite participants to complete a physical copy, engage in an electronic or online survey, or offer vocal responses while you record their answers.

**Quantitative research questions.** A limited quantity of precisely formulated inquiries, with a minimum of 30 but ideally a larger number, directed towards a substantial sample size of at least 30, though preferably more, may yield feasible, dependable, and noteworthy results. To obtain valuable responses:

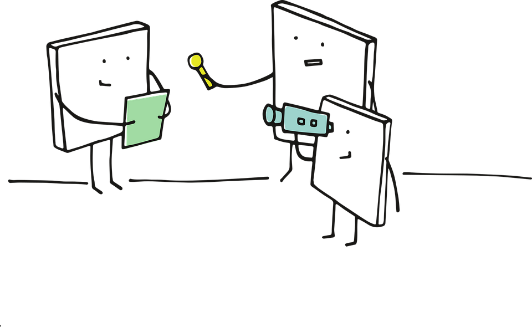
* Ensure that questions are formulated in a concise and clear manner. Assist them in ensuring that participants comprehend the information correctly. Please rephrase the text if necessary.
* Adopt a targeted strategy by posing a limited number of questions, subsequently followed by further inquiries that can aid in understanding and evaluating the data.
* Refrain from posing personal inquiries or those that could cause discomfort or distress to the interviewee. Make certain that every item is phrased as an individual question.
* Utilize closed questions that prompt straightforward 'yes/no/don't know' responses or inquiries that yield easily quantifiable answers. The recording and analysis of responses is significantly streamlined.
* ****Select a representative sample of individuals who are pertinent to the project brief.
* Using controlled settings guarantees that questions are presented in a manner that is fair and does not compromise the accuracy of the results.

**Using scales:** A method of data collection includes presenting participants with a list of statements and requesting that they indicate their preferred responses by circling them. Alternatively, you may ask participants to assess their responses utilizing a Likert-type scale.

**Preparation:** To guarantee that persons can independently complete the questionnaire, its usability must be uncomplicated. Restrict the number of inquiries to a maximum of 5 to 6. The majority of persons often respond solely to inquiries requiring a straightforward 'yes' or 'no' answer or necessitating the selection of an item from a list. A limited number of individuals provide comments. Online and mail surveys often exhibit low response rates and little data on the respondents. Allocate sufficient room for responses when posing open-ended questions or requesting feedback. Utilize online resources such as ***SurveyMonkey, Google Sheets,*** and others.

***Documenting replies:*** Preserve precise documentation. Construct tables from your results. Develop a basic instrument to collect your feedback.

**Interview techniques**

**Prepare for the interview:** Thorough preparation will enable you to retain control of the interview, ensuring it remains focused and concise.

* Formulate your inquiries in advance.
* Consider how to succinctly present yourself and the project. Clearly indicate that this is a student effort. Supply details on any involved businesses.
* Participants must be informed of the handling of their data and the measures taken to ensure confidentiality.
* Participants must acknowledge and consent to the use of their replies in an electronic database.
* Decide on the method for concluding the interview.

**Conducting the interview**

* Provide participants your undivided attention (refrain from taking calls, checking messages, etc.).
* Familiarize yourself with your questions to avoid reading them and enhance engagement with others.
* Position yourself at a right angle to the interviewee. Establish eye contact and grin intermittently.
* Exude confidence while maintaining politeness. Be concise: avoid wasting others' time.
* Thank you for your participation.

Following extensive interviews, promptly document your notes.

* Transcribe the interview verbatim, capturing all utterances, including pauses, coughs, and filler words such as 'ums' and 'ahs.'
* Review your notes using colored pens or pencils, highlighting those sections that reference similar subjects.
* Compile a list of themes together with their corresponding places in your notes.

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| **Activity 1. Reading. Read the text and answer the following questions.** |

1. What exactly is the distinction between quantitative and qualitative research?
2. What exactly is mixed-method research? Which one do you prefer?
3. How well do you understand data collection, compilation, and analysis?
4. What factors is important while designing surveys and questionnaires?
5. Do you have any best practices for conducting interviews?

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| **Activity 2. Watch the video about “Research Design: Choosing your Data Collection Methods”, make notes while watching.** |

You tube link: <https://www.youtube.com/watch?v=q17s84ADGfA&ab_channel=Scribbr>

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| **Activity 3. Speaking. Answer the following questions.** |

1. What precisely constitutes a data gathering method?
2. How do surveys facilitate data collection?
3. What is the function of questionnaires in data collection?
4. What are the advantages and disadvantages of interviews?
5. In what manner do observations facilitate data collection?
6. What is the objective of a quantitative observation?
7. What precisely constitutes a qualitative observation?
8. Why do individuals exhibit varying behaviours while under observation?
9. What supplementary data collecting tools are you acquainted with?
10. In what ways can secondary data facilitate research endeavours?

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| **Activity 4. Listening. Complete the notes below. Write ONE WORD ONLY for each answer.** |

**Research Design: Choosing your Data Collection Methods**

**Data collection methods** allow you to gain first-hand knowledge and original insights into your research problem.

* ***Surveys*** allow you to collect data about opinions, behaviors, experiences and demographic 1\_\_\_\_\_\_\_\_\_\_\_\_ by asking people directly.
* ***Questionnaires*** allow you to collect consistent data from many people and analyse the responses 2\_\_\_\_\_\_\_\_\_\_\_\_\_.
* ***Interviews*** allow participants to answer questions in their own words. You can ask follow-up questions and explore ideas in more depth.
* ***Observations*** help collect data 3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, observing characteristics, behaviours or social interactions with our relying on self-reporting.
* ***Quantitative observation*** involves systematically measuring or counting specific offense, 4\_\_\_\_\_\_\_\_\_\_, characteristics, with clear and objective rules.
* ***Qualitative observation*** involves taking detailed notes and writing rich descriptions of what is observed.
* ***In theory,*** observations allow you to collect data on how people really 5\_\_\_\_\_\_\_\_\_\_, and not just how they say they do.

**Other data collection methods**

* ***In media and communication,*** you might collect a sample of text to be analysed, for example, speeches, articles or social media posts.
* ***In psychology,*** you might use 6\_\_\_\_\_\_\_\_\_\_\_\_, like neuroimaging, eye tracking, or computer-based tasks to measure attention or reaction time.
* ***In education,*** you might use tests or 7\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to collect data about knowledge and skills.
* ***In physical sciences,*** you might use scientific 8\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to measure weight, blood pressure or chemical composition.

**Secondary data**

* Allow you to answer new research questions that weren't addressed by the 9\_\_\_\_\_\_\_\_\_\_\_\_ study.
* Gives you access to much larger, and more very samples that you could collect yourself.
* You don't have any control over which 10\_\_\_\_\_\_\_\_\_\_\_\_ to measure or how to measure them.

**Listening. Key:**

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| 1. Characteristics 2. Statistically 3. Unobtrusively 4. Behaviours 5. Behave | 1. Technologies 2. Assignments 3. Instruments 4. Original 5. Variables |

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| **Activity 5. Vocabulary. Match the words with an appropriate definition.** |

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|  | **Words** | **Definitions** |
| 1 | category | a) any material, such as oil, cotton, or sugar in its natural condition, before it has been processed for use |
| 2 | consistent | b) in a way that is done according to an agreed set of methods or organized plan |
| 3 | description | c) to give details about something yourself, rather than having them reported by someone else |
| 4 | ethnography | d) a formal statement of ideas that are suggested to explain a fact or event, or how something works |
| 5 | raw material | e) always happening or behaving in a similar way |
| 6 | self-report | f) in a way that is not easy to notice |
| 7 | systematically | g) something that can change, esp. in a way that cannot be known in advance |
| 8 | theory | h) a group of people or things that have similar features |
| 9 | unobtrusively | i) a scientific description of the culture of a society by someone who has lived in it, or a book containing this |
| 10 | variable | j) a statement or a piece of writing that tells what something or someone is like |

**Activity 5. Vocabulary. Key:** 1.h, 2.e, 3.j, 4.i, 5.a, 6.c, 7.b, 8.d, 9.f, 10.g

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